

Serial No. 09/903,024

Group Art Unit: 2653

Amendments in the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (currently amended) A head suspension comprising:
- a base;
- a load beam ~~extending in a first plane~~ having a first end and a second end, a longitudinal axis extending between the first end and the second end of the load beam, and a transverse axis extending perpendicular to the longitudinal axis within the first plane; and
- a bend section extending in a first plane and connecting the base to the second end of the load beam to define a load path for transmission of forces between the base and the load beam, the bend section including a transverse axis aligned parallel to the transverse axis of the load beam, a longitudinal axis aligned parallel to the load beam longitudinal axis, a width measured along the transverse axis of the bend section between first and second sides of the bend section, and first and second rails formed from material of the bend section and extending in a direction parallel to the transverse axis of the bend section, and further extending the first and second rails being bent out of the first plane so as to form an open channel across at least a portion of the width of the bend section, the open channel being positioned in the load path such that the forces transmitted between the base and the load beam pass through the open channel.
2. (previously presented) The suspension of claim 1 wherein the first and second rails extend in second and third planes distinct from the first plane.
3. (currently amended) The suspension of claim 1 wherein each of the first and second rails has a separate width, thickness, and length ~~width, a thickness, and a length, and wherein the~~ width of ~~the~~ the first and second rails is being substantially similar to the width of the base.
4. (currently amended) The suspension of claim 1 wherein ~~the~~ the first and second rails extend in a direction substantially normal to the first plane.

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5. (previously presented) The suspension of claim 1 wherein the first and second rails are separated in the longitudinal axis direction of the bend section, and a portion of the bend section extending in the first plane connect the first and second rails together to form the open channel.

6. (previously presented) The suspension of claim 1 wherein a cross-section of the open channel is substantially U-shaped.

7. (previously presented) The suspension of claim 1 wherein either the first rail or the second rail comprises two segments along its width.

8. (canceled) The suspension of claim 2 wherein the first and second rails include a portion of the bend section in the first plane that is cut into the shape of the first or second rail and then bent into the second or third plane to form the first or second rail.

9. (previously presented) The suspension of claim 1 wherein a cross-section of the open channel is substantially circular.

10. (previously presented) The suspension of claim 1 wherein a portion of the bend section and the first and second rails is removed on one side of the longitudinal axis.

11. (previously presented) The suspension of claim 1 wherein the load beam has a width centered about the longitudinal axis, and wherein the width of the first and second rails is greater than the width of the load beam and no wider than a width of the base.

12. (previously presented) The suspension of claim 1 wherein the load beam has a width centered about the longitudinal axis, and wherein the width the first and second rails is less than the width of the load beam.

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13. (currently amended) A suspension member comprising:

a plate extending in a first plane, the plate having a width centered about a longitudinal axis of the plate; and

first and second rails ~~coupled to the plate, the first and second rails~~ formed from material of the plate and each having a width extending in a direction transverse to the longitudinal axis of the plate ~~and, the first and second rails being bent out of the first plane and~~ being spaced apart in the longitudinal direction, the first rail ~~further~~ having a length extending in a second plane and the second ~~rails~~ rail having a length extending in a third plane, the second and third planes being different than the first plane, wherein a portion of the plate extending in the first plane connects the first and second rails together to form an open channel having a generally U-shaped cross-section, a portion of the first and second rails extending across substantially all of the bend section width.

14. (previously presented) The suspension member of claim 13 wherein the second and third planes are perpendicular to the first plane.

15. (previously presented) The suspension member of claim 13 wherein the second and third planes are at an angle less than 90° from the first plane.

16. (previously presented) The suspension member of claim 13 wherein the second and third planes are at an angle greater than 90° from the first plane.

17. (previously presented) The suspension member of claim 13 wherein the second and third planes extend at different angles from the first plane.

18. (previously presented) The suspension member of claim 13 wherein the second plane and the third plane are curved.

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19. (currently amended) A head suspension comprising:

a base;

a load beam; and

a bend section including a base plate having a first end and a second end, the first end being coupled to the load beam and the second end being coupled to the base, ~~a the~~ base plate extending in a first plane, and ~~first and second rails~~ a rail coupled to the plate, the rail having a width, a length, and a thickness, the first rail and extending in a second plane ~~and the second rail extending in a third plane~~, the first plane being different from the second ~~and third planes~~ plane, and a portion of the base plate extending in the first plane connects the first and second rails to form an open channel the rail width being defined across the bend section in a direction transverse to a longitudinal axis of the head suspension, whereby the base or the load beam is coupled to the bend section along the width of the rail.

20. (currently amended) A suspension member comprising:

a base ~~extending in a first plane~~;

a load beam ~~extending in a first plane~~; and

stiffening means extending in a first plane and coupling the base and load beam for maximizing translational stiffness of the load beam in a direction out of the first plane while minimizing rotational stiffness of the load beam, the stiffening means including first and second rails each having a width extending in a direction transverse to a longitudinal axis of the suspension member ~~and further extending~~, a length extending in a direction out of the first plane, and a thickness, the first and second rails being spaced apart ~~in a direction of~~ along the longitudinal axis and being connected by a portion of the stiffening means that extends in the first plane so as to form a open channel; whereby the base or the load beam is coupled to the stiffening means along the width of the first or second rail.

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21. (previously presented) A head suspension comprising:

a base;

a load beam extending in a first plane having a first end and a second end, a longitudinal axis extending between the first end and the second end of the load beam, and a transverse axis extending perpendicular to the longitudinal axis within the first plane; and

a bend section connecting the base to the second end of the load beam, the bend section including a transverse axis aligned parallel to the transverse axis of the load beam, and a longitudinal axis aligned parallel to the load beam longitudinal axis, a width measured along the transverse axis of the bend section, and a rail having a width extending in a direction parallel to the transverse axis of the bend section and a length extending out of the first plane, wherein the rail includes at least two separate segments along the rail width.
